FIG.1

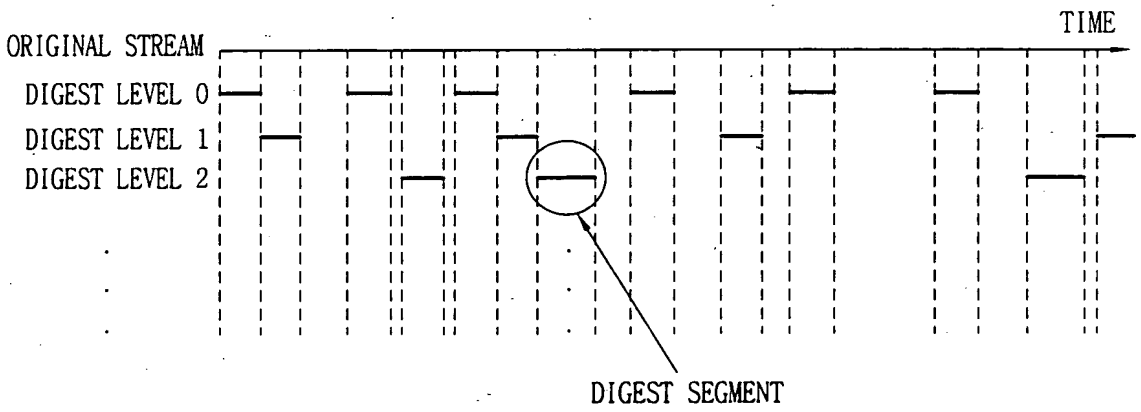

TIME
ORIGINAL STREAM
DIGEST LEVEL 0
DIGEST LEVEL 1
DIGEST LEVEL 2
DIGEST SEGMENT

FIG.2

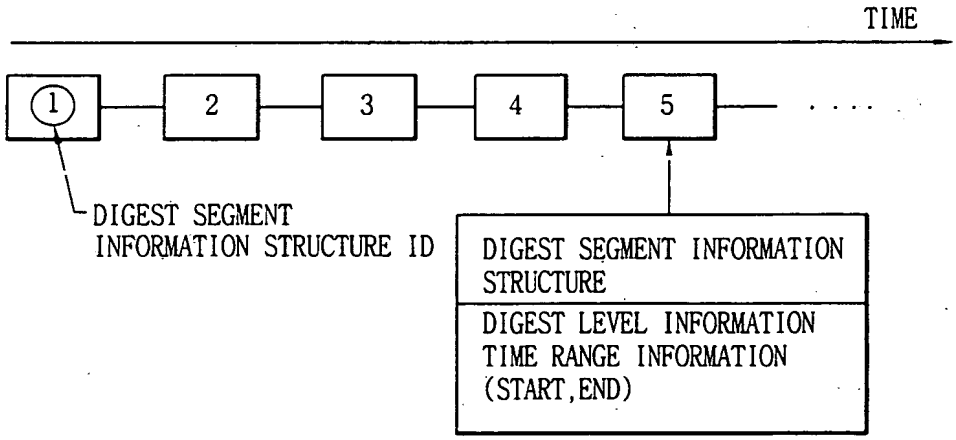

TIME
1
2
3
4
5
DIGEST SEGMENT INFORMATION STRUCTURE ID
DIGEST SEGMENT INFORMATION STRUCTURE
DIGEST LEVEL INFORMATION
TIME RANGE INFORMATION
(START,END)

FIG.3

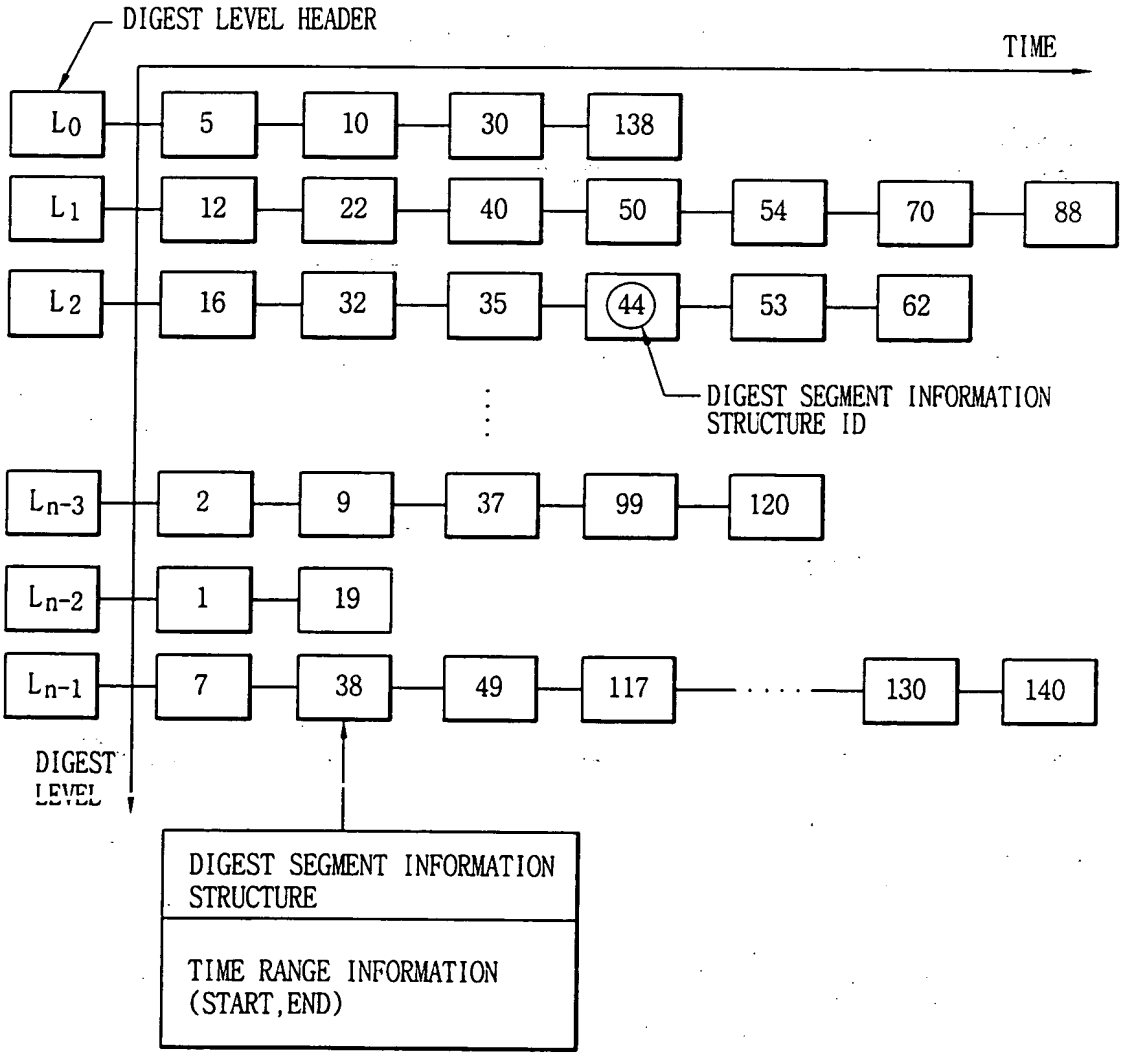

DIGEST LEVEL HEADER
TIME
L0
5
10
30
138
L1
12
22
40
50
54
70
88
L2
16
32
35
44
53
62
DIGEST SEGMENT INFORMATION STRUCTURE ID
Ln-3
2
9
37
99
120
Ln-2
1
19
Ln-1
7
38
49
117
130
140
DIGEST LEVEL
DIGEST SEGMENT INFORMATION STRUCTURE
TIME RANGE INFORMATION (START,END)

FIG.4

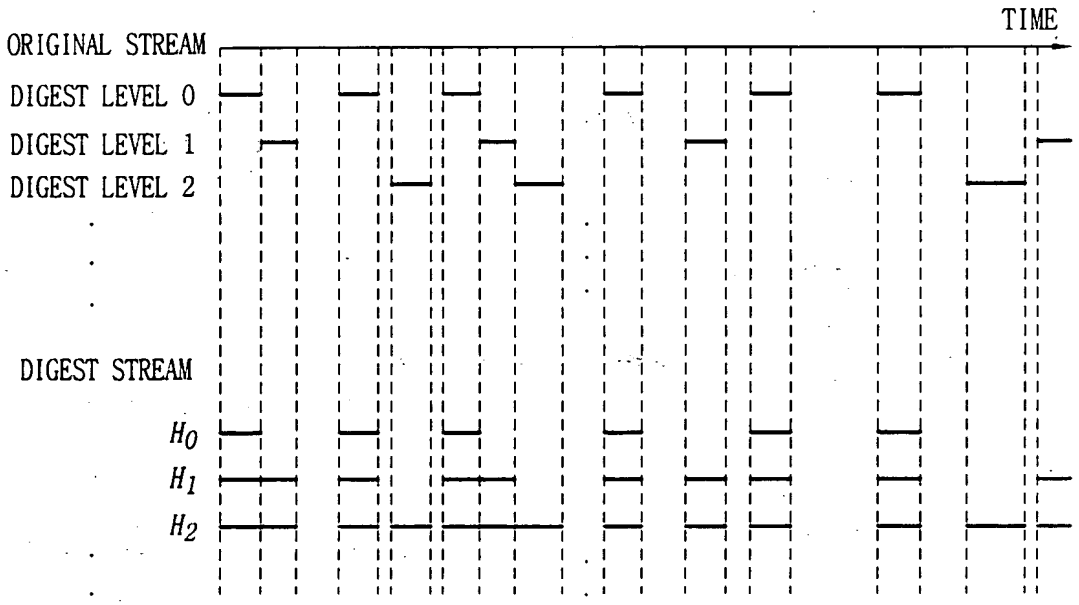

TIME
ORIGINAL STREAM
DIGEST LEVEL 0
DIGEST LEVEL 1
DIGEST LEVEL 2
DIGEST STREAM
$H_0$
$H_1$
$H_2$

FIG.5

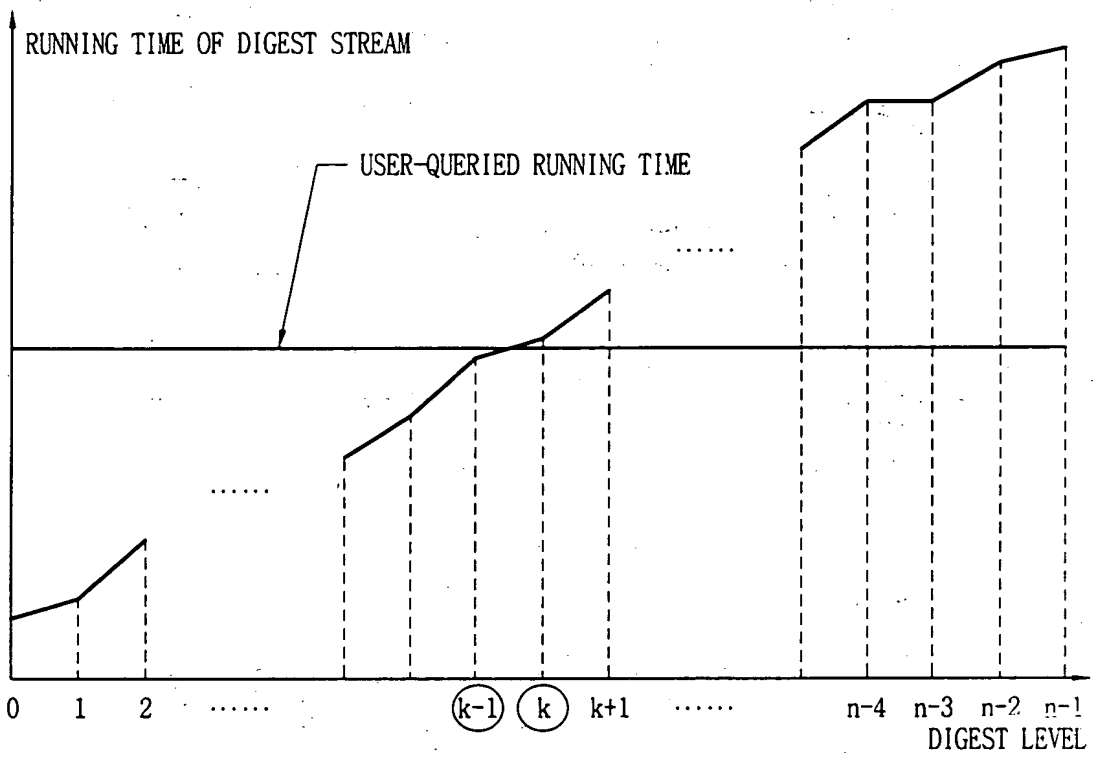

RUNNING TIME OF DIGEST STREAM
USER-QUERIED RUNNING TIME
0
1
2
k-1
k
k+1
n-4
n-3
n-2
n-1
DIGEST LEVEL

FIG.6

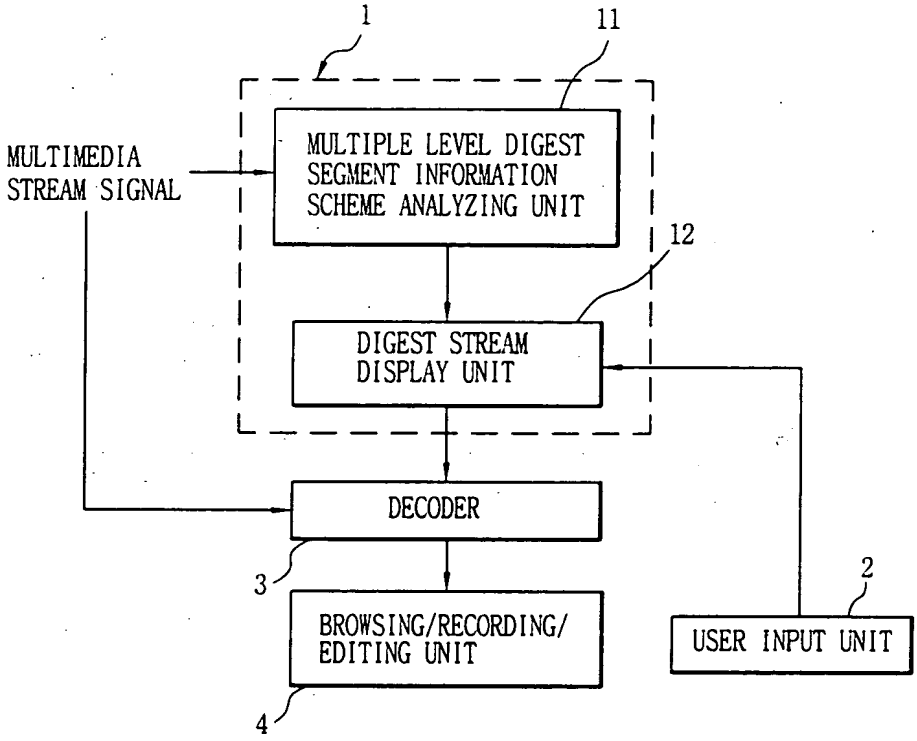
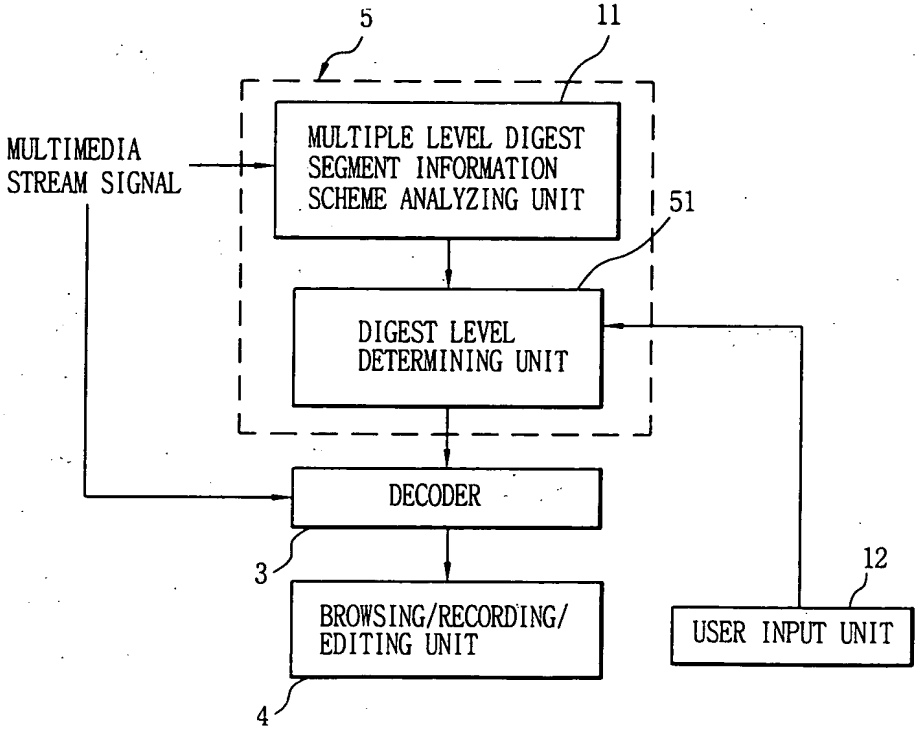

1
11
MULTIMEDIA STREAM SIGNAL
MULTIPLE LEVEL DIGEST SEGMENT INFORMATION SCHEME ANALYZING UNIT
12
DIGEST STREAM DISPLAY UNIT
DECODER
3
BROWSING/RECORDING/ EDITING UNIT
4
2
USER INPUT UNIT

FIG.7


5
11
MULTIMEDIA STREAM SIGNAL
MULTIPLE LEVEL DIGEST SEGMENT INFORMATION SCHEME ANALYZING UNIT
51
DIGEST LEVEL DETERMINING UNIT
DECODER
3
BROWSING/RECORDING/ EDITING UNIT
4
12
USER INPUT UNIT